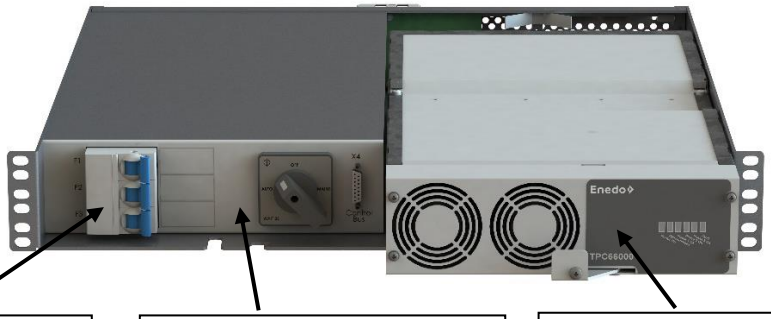
TPC66000

Datasheet

UTILITY RAIL INDUSTRIAL TELECOM

3-phase Synchronization Unit for DAC60000 Inverters

CE



AC output fuse 3-phase

19” 1.5U subrack including 3-phase manual bypass

3-phase synchronization unit Synchronizes the 120° phase difference between static switches

3-PHASE INVERTER SYSTEMS 4.5kVA – 22.5kVA

Modular 3-phase inverter systems 3 x 1.5 - 7.5kVA can be built with TPC synchronization unit and DAC60000 inverters. System includes one 19” 1.5U rack for 3-phase manual bypass and sync unit, which controls 3 separate 1-phase systems each including one static switch and 1-6 pcs of inverters. Secured 400/230VAC three phase power can be supplied to star connected loads.

LI

L2

L3

Features

- Modular architecture, 3-phase systems are built by same inverter modules as 1-phase systems
- Small size, light weight, standard 19" rack
- Flexibility to define power capacity and on-line/off-line default supply independently for each phase
- SNMP for remote access, RS-232 with standard PC for local monitoring and parameter setting

User programmable parameters

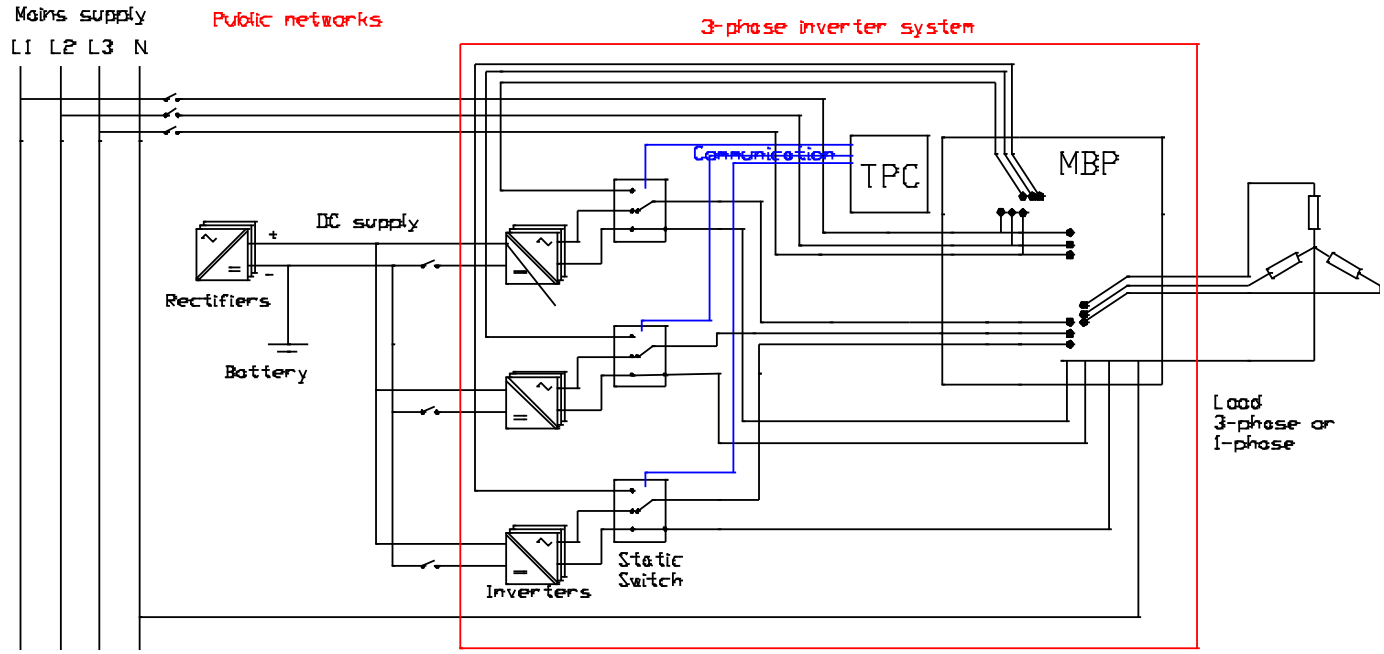
- On-line/Off-line configuration
- Minimum and maximum inverter RMS voltage conformity
- Minimum and maximum mains RMS voltage conformity
- Minimum and maximum mains frequency conformity
- Maximum allowed mains frequency change rate

TPC66000

Datasheet

3-PHASE SYNCHRONIZATION MODULE	
Type	Description
TPC66100FR	3-phase synchronization plug-in module, 220 x 64 x 409 mm, 2kg

19” 1.5U POWERFRAMES (sub-racks)	
Type	Description
MBP68500	Sub-rack including 3-phase manual bypass, AC-output fuses and position for TPC sync unit, 19” x 1.5U x 480mm, 5kg
MBP68502	Sub-rack including 3-phase manual bypass and position for TPC sync unit, 19” x 1.5U x 480mm, 5kg



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TPC66000

Datasheet

SPECIFICATION

ELECTRICAL

Mains voltage	400/230VAC (L1-L2-L3, N, PE)	3-phase star connected mains
Inverter DC supply	Depending on the battery bank	24VDC, 48VDC, 60VDC, 110VDC, 125VDC
System output voltage	400/230VAC (L1-L2-L3, N, PE)	3-phase star connected loads or 1-phase loads
Power range	7.5kVA static switch	3 x 1.5 – 7.5kVA
Optional power range	30kVA static switch	3 x 1.5 – 30kVA
Synchronizing frequency	Nominal 50 Hz	User programmable 40-70 Hz
Mains input connectors	L1, L2, L3, N, PE	10mm^2 screw terminals
Inverter/static switch input	Inverter system output to static switch	With AC bus bars, M5 ring terminals
	Static switch inputs/outputs to man. bypass	10mm^2 screw terminals L1, L2, L3, N, PE
AC outputs connectors	L1, L2, L3, N, PE	10mm^2 screw terminals

All connectors are located on rear panel

CONTROLS

3-phase manual bypass	Rotating switch K&N CA40 , 4 positions: Off–Mains–Sync-Auto	max current 40A, short circuit max 950A (1s)
Input protection	External fuse in mains input of each phase	MCB 40A B-, C- or D-curve or gG fuse 40A
Output protection, loads	3-phase manual bypass unit	C32A 3-phase MCB

STANDARDS

Safety		EN 60950-1
EMC	Emissions without filter	EN61000-6-4, EN 55022A
	Emissions with filter	EN61000-6-3, EN 55022B
	Immunity	EN61000-6-2

ALARMS AND INDICATORS

LED indications	TPC unit front panel	Power On – Synchronized – Phase 1 OK – Phase 2 OK – Phase 3 OK - Fault
Relay alarms	Alarms from static switch in each phase	Fault in system, Primary supply failure

Remote monitoring through RS-232

MECHANICALS

Dimensions & weight	See page 1	
Enclosure	hot galvanized steel	IP20
Front plate painted		RAL7035
Finger protection	Polycarbonate plate	Covers rear panel's screw terminals

ENVIRONMENTAL

Temperature range	Operating	0…45 ºC full power, 45…60 ºC reduced power
Cooling		Natural